

CHERMES ALNI, TWO CENTURIES AFTER KALM (HOMOPTERA: PSYLLIIDAE)¹

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Apparently the definition of *Chermes alni* Linnaeus and the limitations imposed by the definition in the tenth edition of *Systema Naturae*, page 454, 1758, have either been ignored or not thoroughly investigated and the definition in *Fauna Suecica*, page 263, 1761, has been considered the original description; thus the entire concept of *Chermes alni* has been taken from this latter work. In his "Tenth Edition" Linnaeus states, "*Habitant in Betulae Alni ramulis Larvae, caudis plumosis tectae, in America septentrionali. Kalm.*" There is nothing in the International Rules of Zoological Nomenclature that invalidates this description. Since Peter Kalm is cited as collector of the insect under discussion any ecological data furnished by Kalm is certainly valuable and can not be discounted because of acquisition prior to 1758. An insect must be collected before it can be described and any data, whether pinned on the same pin as the specimen or not, should accompany the specimen. It is of further interest to note while Linnaeus' description of *alni* in the tenth edition has been ignored for purposes of original description, the North American record as taken from that work has been carried through the years and has recently resulted in *Psylla alni americana* Crawford being placed as a synonym of typical *alni* on the grounds that since *alni* was described from America *americana* must represent this form.² It should be noted in this connection that the American form described by Crawford as *americana* is known only from the far West. Had Kalm's notes been consulted it is not likely that this action would have been taken.

The English version of 1770, of Peter Kalm's travels in North America revised from the original Swedish and edited by Adolph B. Benson, on page 81, reads, "Chermes on the alder (*Chermes alni*)³ were today found in great abundance on the branches of that tree, which for that reason looked almost white and at a distance appeared as if it were covered with mould." This account appears under Kalm's entry of October 3, 1748, on the journey to Wilmington, Delaware, from a farm near Philadelphia, Pennsylvania. These data with the original description furnish enough information to identify the insect as the only species covered with white flocculent material occurring in dense masses on the branches of alder in late fall in the vicinity of Philadelphia, Pa. On October 7, 1945, I was able to collect from alder immediately north and east of Philadelphia, and on October 12, 1945, I collected from alder immediately south and west of that city. Not one specimen of Psylliidae was taken from alder. Anyone contending that Kalm observed a species of Psylliidae has yet to report the occurrence under conditions described by Kalm of such an insect from Eastern North America to say nothing of the Philadelphia area. The topotypic insect found in such numbers as to make the alder branches appear covered with mould has been identified by the Bureau of Entomology and Plant Quarantine, Division of Insect Identification, as *Prociphilus tessellatus* (Fitch); therefore I am convinced that Kalm observed the insect known as *Prociphilus tessellatus* (Fitch) and that this species is a direct synonym of *Chermes alni* Linnaeus.

¹An elucidation of the facts for authority to use the family name Psylliidae instead of Psyllidae or Chermidae. (See: Jr. N. Y. Ent. Soc. 52: 335, 1944.)

²Tuthill, L. D., Iowa State College Jr. Sci. 17: 460-461, 1943.

³The original reads, "*Chermes alni Linnei* Faun. Suec. 698." (See: En Resa til Norra America 2: 276, 1756.)

Since *alni* belongs in the Aphioidea and is the type species of the type genus *Psylla*, the family name goes with the zoological concept into the aphids. The next available type designation, which will maintain the zoological concept, is Kirkaldy's *Psyllia*, type *pyri* (L.) making the family name Psylliidae. Kirkaldy's type designation is definite and valid under the "Code" regardless of the reasons upon which he based his decisions. By admittance of these facts the old controversy of Chermidae vs. Psyllidae, which arose from Geoffroy's noncommittal treatment of a composite group that resulted in differences of opinion as to his intent, is legitimately and logically bypassed. There is no need to submit the question of Chermidae vs. Psyllidae to the International Commission for an opinion. Those who wish to preserve either name as a "*nomina conservanda*" must now submit a name based upon an interpretation of Geoffroy's intent as opposed to a name acceptable from both a zoological and nomenclatural viewpoint.
